



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, SACRAMENTO
CORPS OF ENGINEERS
1325 J STREET
SACRAMENTO, CALIFORNIA 95814-2922

Executive Office

Mr. John Thomas, P.E.
Utah Department of Transportation
4001 South 700 East, Suite 450
Salt Lake City, Utah 84107

Dear Mr. Thomas:

We are enclosing your copy of Department of the Army Permit Number 200350493. Please note you are only authorized to place dredged or fill material into waters and wetlands as described in the permit.

The time limit for completing the work is specified in General Condition 1. If the work will not be completed prior to that date, you may request a time extension. Your request for an extension must be received by this office for consideration at least 30 days before the time limit date.

Please refer to identification number 200350493 in any correspondence concerning this project. If you have any questions, please contact Shawn Zinszer at our Utah Regulatory Office, 533 West 2600 South, Suite 150, Bountiful, Utah 84010-7744, email Shawn.H.Zinszer@usace.army.mil, or telephone 801-295-8380, extension 11. You may also use our website: www.spk.usace.army.mil/regulatory.html.

Sincerely,

Ronald N. Light
Colonel, U.S. Army
District Engineer

Enclosures

Copies furnished without enclosures

Greg Punske, P.E., Federal Highway Administration, 2520 West 4700 South, Suite 9A,
Salt Lake City, Utah 84118-1847

Nancy Keate, PhD, Utah Department of Natural Resources, Division of Wildlife, 1594
West North Temple, Suite 2110, P.O. Box 146301, Salt Lake City, Utah 84114-6301

Henry Maddox, Field Supervisor, U.S. Fish and Wildlife Service, 2369 West Orton Circle,
Salt Lake City, Utah 84119

Gary Uresk, Woods Cross City, City Administrator, 1500 South 800 West, Woods Cross,
Utah 84087

DEPARTMENT OF THE ARMY PERMIT

Permittee: John Thomas, P.E.
Utah Department of Transportation
4001 South 700 East, Suite 450
Salt Lake City, Utah 84107

Permit Number: 200350493

Issuing Office: U.S. Army Engineer District, Sacramento
Corps of Engineers
1325 "J" Street
Sacramento, California 95814-2922

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below. A notice of appeal options is enclosed.

Project Description: The project begins in Salt Lake City, at the intersection of 2100 North and I-215. It ends in Farmington at the U.S. Highway 89 and I-15 interchange, in Davis County.

The project purpose is to help meet existing and projected travel demand through 2020 in the North Corridor by providing additional north-south transportation capacity. The 14-mile freeway will consist of 2 lanes in each direction separated by a 50'-wide grassed center median. A continuous trail for pedestrians, bicyclists, and equestrians will parallel the roadway. Other project features include:

- Widening I-215 to three lanes in each direction, from 2100 North to a location 1,476 feet west of the Redwood Road interchange.
- New interchange on I-215, 0.3 miles west of the Redwood Road interchange.
- New service interchanges at:
 - 500 South in Woods Cross
 - Parrish Lane in Centerville
- Overpasses at (Legacy Parkway remains at-grade):
 - Center Street in North Salt Lake
 - Glovers Lane, State Street (Clark Lane), Burke/Park Lane in Farmington
 - 1250 West in Centerville
- Three frontage roads, beginning at:

- (1) The proposed 500 South interchange in Woods Cross. The road continues north, along the west side of the alignment to the Bountiful Landfill.
- (2) 1100 West in West Bountiful and proceeds northeast along the eastern side of the alignment to Porter Lane.
- (3) 1250 West 950 North and ends east of the southern terminus of 650 West in Farmington. The frontage road will be parallel to and located on the west side of the alignment through Centerville.
- Culverted crossings at Shepard, Farmington, Steed, Ricks, Barnard, Parrish, Duel/Stone Creeks.
- Bridges over the Jordan River and Mill Creek.
- Landscaped earthen berm between the roadway and trail along:
 - east side between 500 South and Porter Lane in West Bountiful
 - west side between Grovers Lane and State Street in Farmington
- 2,098-acre Legacy Nature Preserve to mitigate for indirect and direct impacts to wetlands and wildlife. Within this preserve, UDOT would create 12 acres of wetlands and restore and enhance the wetland functions of 778 acres of wetlands.

All work is to be completed in accordance with the attached sheets 3 through 9.

PERMIT CONDITIONS:

Special Conditions:

1. All mitigation measures described in Attachment 1 (Record of Decision, Section G, Table 5, *Mitigation Measures*), are incorporated as conditions of the permit. UDOT shall provide an Environmental Oversight Manager who will ensure effective implementation of the mitigation measures and all necessary remedial actions.
2. All terms and conditions of the December 5, 2000, Section 401 Water Quality Certification are incorporated as conditions of the permit.
3. To mitigate the loss of 103 acres of wetlands and indirect effects on 575 acres of wetlands, UDOT will implement mitigation as described in Appendix F of the Final Supplemental EIS, *Mitigation Plan for the Legacy Nature Preserve*, (Draft October 2005). This would include the implementation of the *Adaptive Management Plan* (UDOT & SWCA 2005). The draft Mitigation Plan will be revised to include the following:

Quantitative success criteria, with proposed survey methods, used to monitor characteristic vegetation and hydrology and measure success.

- a. The minimum acreage of wetland-wildlife habitat that needs to be maintained in good condition is shown in Table 11. (Using wetland-wildlife habitat acreage rather than the acreage from the 2000 wetland delineation map will allow the inclusion of riparian areas along the Jordan River and updated 2004 habitat mapping.)
- b. Relative cover of noxious/invasive weeds in each plant community shall not exceed 20%.

Table 1. Habitat Success Criteria for Preserve

Habitat (acres) Success Criteria by Management Area					
	Riverine	Evaporative Basins	Alkali Flats	Wet Meadow	Farmington Bay
Wetland Complex/ Riparian Habitats	63	193	137 + 12	138	363

Note: Wetland complex/riparian wildlife habitat is not synonymous with "jurisdictional wetlands" as defined in Section 4.12, *Wetlands*, of the Final Supplemental EIS. Wetland complex/riparian wildlife habitat includes jurisdictional areas as well as non-jurisdictional riparian areas and other mesic habitats. This difference is discussed in greater detail in Appendix B of the *Legacy Parkway Wildlife Impacts Analysis Technical Memorandum* (Jones & Stokes 2005).

- c. Detailed construction, implementation, and monitoring methods for the creation of 12 acres of slope wetlands. Details will include, but not be limited to, specific locations with plan and cross section drawings, target vegetation and hydrology, site preparation and construction techniques, irrigation/water delivery system descriptions, quantifiable success criteria, monitoring methods, documentation and schedule, and maintenance activities. The Corps recommends that sufficient wetland hydrology be demonstrated prior to any planting or seeding, if planting or seeding is proposed.
- d. Clarification of the roles, responsibilities, membership and relationship of the Preserve Manager, Preserve Management Team, Science Advisory Committee, Collaborative Design Team, and the Legacy Nature Preserve 501(c)(3) Board of Directors.
- e. Reporting Requirements will include a description and location map of restoration tasks/measures completed and restoration measures remaining. The mitigation will not be deemed successful until all restoration mitigation tasks have been completed.

f. Reporting Requirements will include annual monitoring until the success criteria for each management area are met. This period will commence upon completion of the creation/construction of 12 acres of wetlands. Additionally, continued success of the mitigation wetlands, with routine maintenance, must be demonstrated for three consecutive years, once the success criteria have been met. The time period to achieve success may be different for each management area. The revised Mitigation Plan must be approved by the Corps prior to initiation of construction activities.

4. Construction of 12 acres of slope wetlands must be completed in advance of the construction of the Parkway, unless protection measures for the bald eagle or acquisition of water rights require delay. In no case will initiation of the construction of compensatory mitigation be delayed beyond October 2006. Construction of compensatory mitigation will be completed no later than March 2007. If modifications are made to the original construction plan/design for the Preserve, as-built drawings of the completed work will be provided to the Corps no later than 60 days after the completion of construction of the mitigation wetlands.

5. UDOT will record deed restrictions maintaining the Legacy Nature Preserve as wetland and wildlife habitat in perpetuity. Deed restrictions will be recorded once all properties are obtained under a single legal description. A copy of the proposed deed restriction language shall be provided to the Corps for approval within 90 days of UDOT obtaining title to all properties comprising the Legacy Nature Preserve, prior to recordation.

6. Uses and activities needed for wildlife habitat management, maintenance, or research are allowed on the Preserve, provided they are consistent with the long-term management goals described in the Adaptive Management Plan (UDOT 2005).

a. The construction of administrative, maintenance, research facilities and associated parking areas shall be minimized to the maximum extent. The facilities shall not compromise the integrity of the Preserve's wetland habitat and function, or wildlife behavior or population size.

b. The planning of facilities for public access and education shall occur in collaboration with resource agencies, neighboring education centers, the Collaborative Design Team, the Preserve Management Team, and when established, the Legacy Nature Preserve 501(c)(3) Board of Directors.

c. The facilities cannot compromise the integrity of the Preserve's wetland habitat and function, or wildlife behavior or population size.

d. The direct and indirect impact to wetland wildlife habitat needs to be minimized to the maximum extent practical. Locating these facilities outside of the Preserve, including at the 121-acre 500 South Property, must be given preference and evaluated as a suitable, least damaging alternative.

e. The Corps must approve the location and type of amenities for the public facilities prior to construction.

7. To ensure the long-term viability of the Preserve, UDOT will continue to maintain and monitor the Preserve until the following has occurred.

a. A fully funded endowment has been established to provide for long-term maintenance, as described in the *Legacy Nature Preserve Adaptive Management Plan* (UDOT & SWCA 2005).

b. Permanent conservation easement(s) shall be recorded maintaining the Legacy Nature Preserve as wetland and wildlife habitat in perpetuity. An appropriate conservation-oriented third party entity (entities) has been designated to hold the conservation easement and administer the endowment funding long-term maintenance needs. Copy of the proposed conservation easement language shall be provided to the Corps for approval prior to recordation.

Compliance: Compliance with the above-detailed permit conditions will be demonstrated and monitored as follows.

8. UDOT will submit an annual report documenting success in implementing mitigation measures listed in Attachment 1, *Mitigation Measures*. UDOT can provide an aerial photograph identifying the type and location of the constructed conveyance structures to demonstrate installation of floodplain and surface water mitigation measures. The location of floodplains, wetlands and streamzones should also be placed on the map. UDOT can also provide the final parkway design to demonstrate the width of the berms have been reduced.

9. UDOT will submit wetland mitigation monitoring reports to the Corps by December 1 of each year for a minimum of 5 years. Monitoring and reporting will continue until success has been achieved and maintained for 3 consecutive years for each management area. It is acknowledged that some management areas may reach success earlier than others.

General Conditions:

1. The time limit for completing the work authorized ends on **January 31, 2010**. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.
2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.
3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.
4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.
5. A conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification dated December 5, 2000 is attached if it contains such conditions.
6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

Further Information:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:

- Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).
- Section 404 of the Clean Water Act (33 U.S.C. 1344).
- Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).

2. Limits of this authorization.

- a. This permit does not obviate the need to obtain other Federal, state, or local authorizations required by law.
- b. This permit does not grant any property rights or exclusive privileges.
- c. This permit does not authorize any injury to the property or rights of others.
- d. This permit does not authorize interference with any existing or proposed Federal projects.

3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:

- a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.
- b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.
- c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.
- d. Design or construction deficiencies associated with the permitted work.
- e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. Reliance on Applicant's Data. The determination of this office that issuance of permit is not contrary to the public interest was made in reliance on the information you provided.

5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time the circumstances warrant.

Circumstances that could require a reevaluation include, but are not limited to, the following:

- a. You fail to comply with the terms and conditions of this permit.
- b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (see 4 above).
- c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions. General Condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.
ea.

John H. Thomas

Permittee

1.19.06

Date

JOHN H. THOMAS, PROJECT DIRECTOR

Typed or Printed Name and Title of Permittee

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

Ronald N. Light
Ronald N. Light
Colonel, U.S. Army
District Engineer

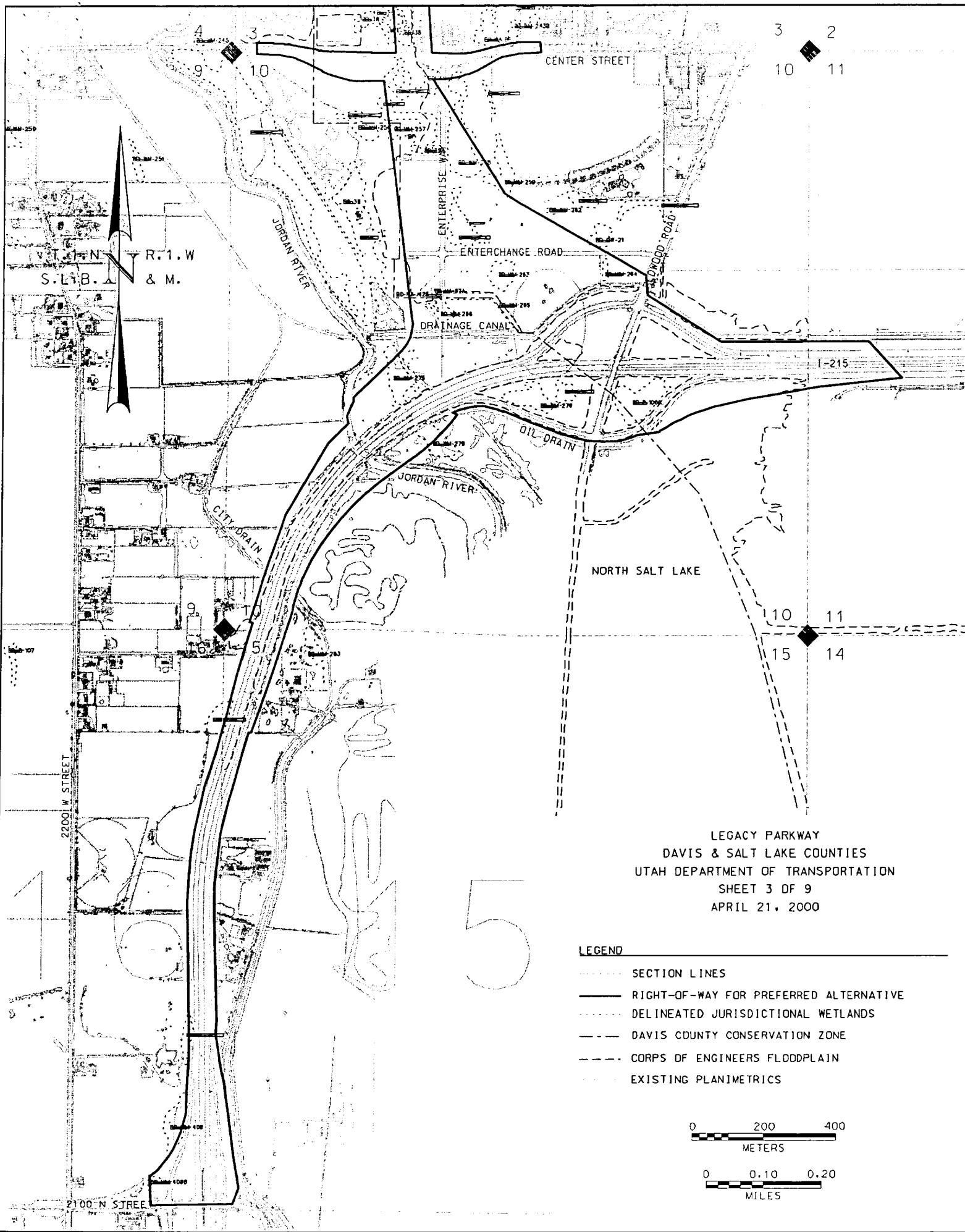
1/20/2006

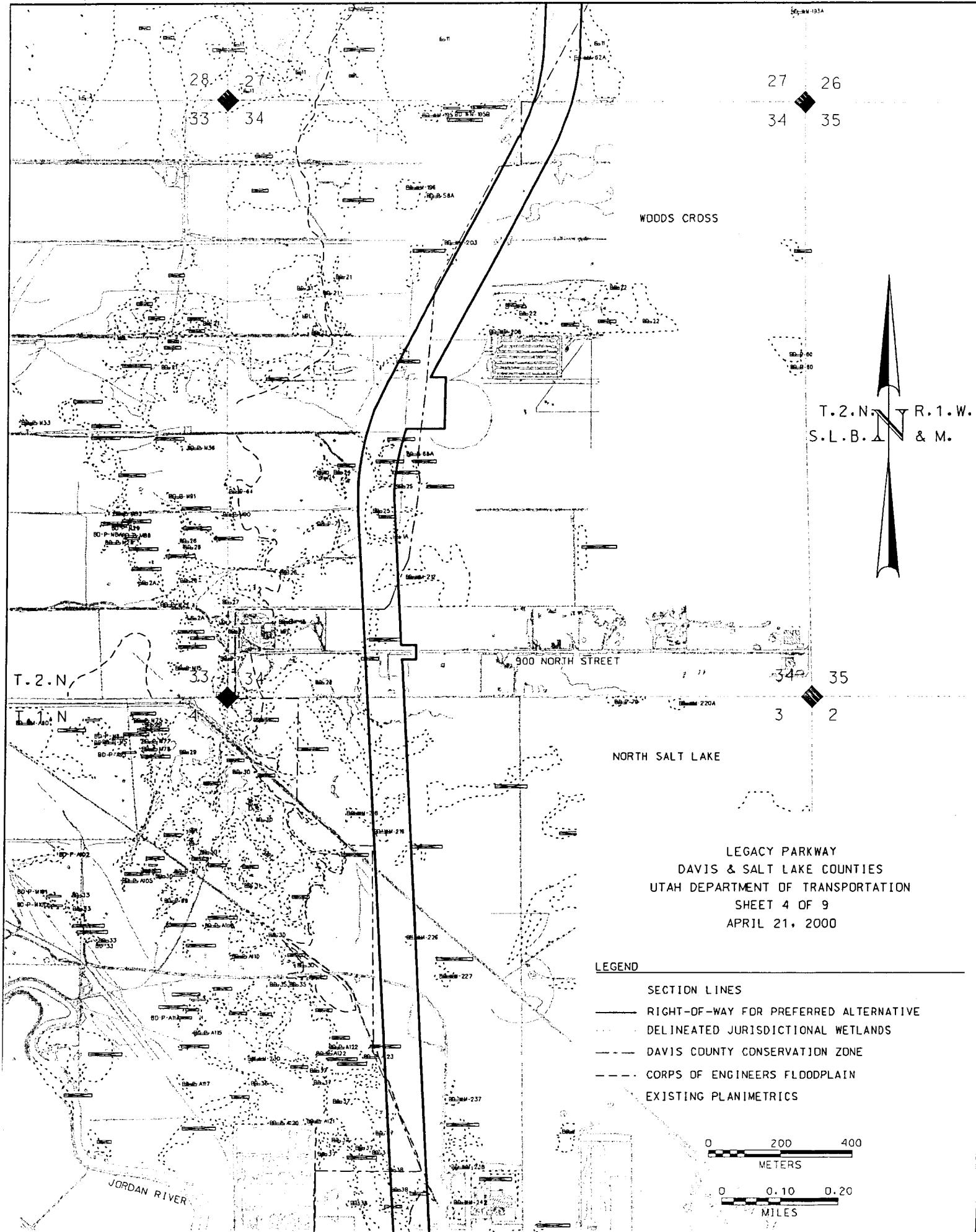
Date

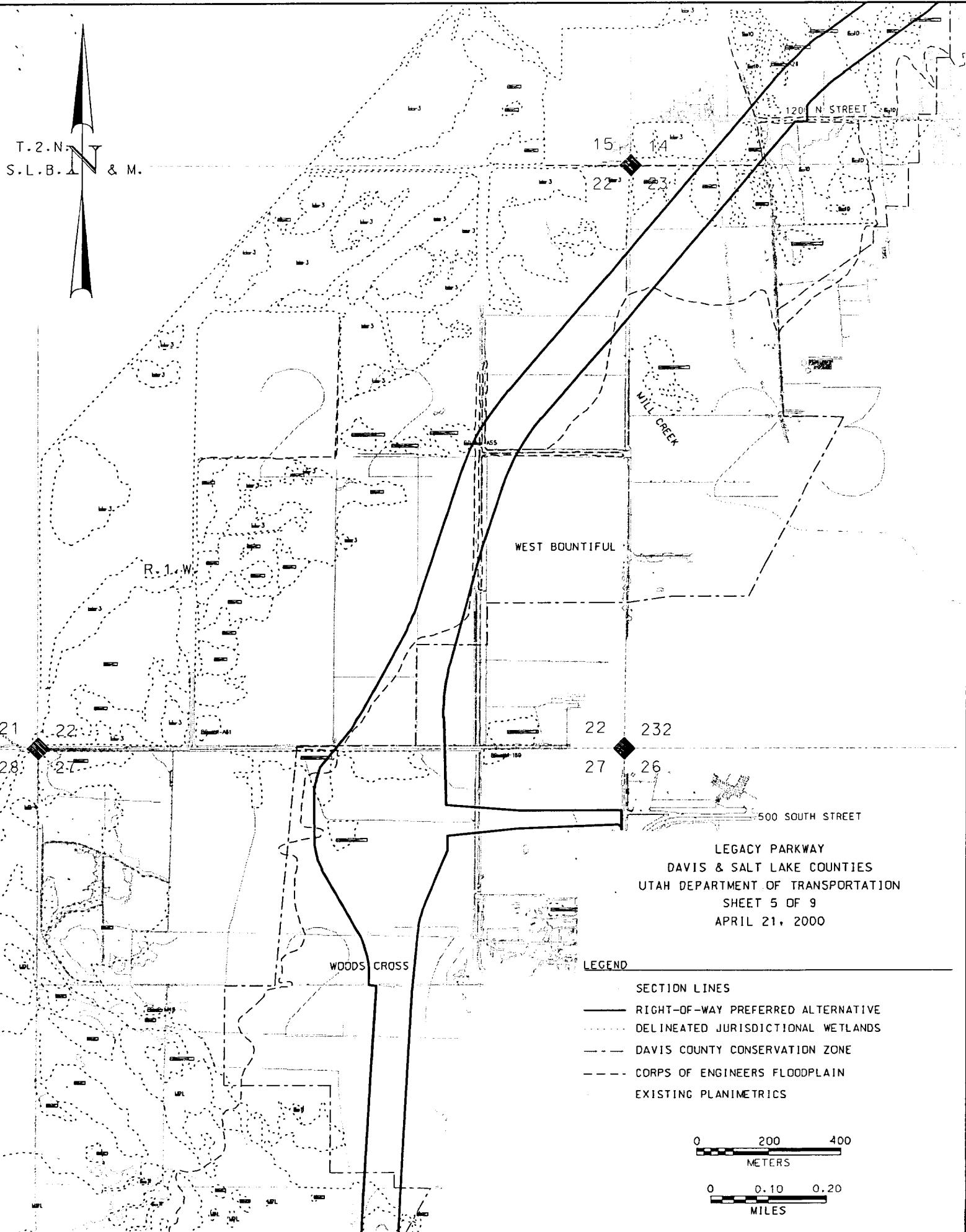
When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

Transferee

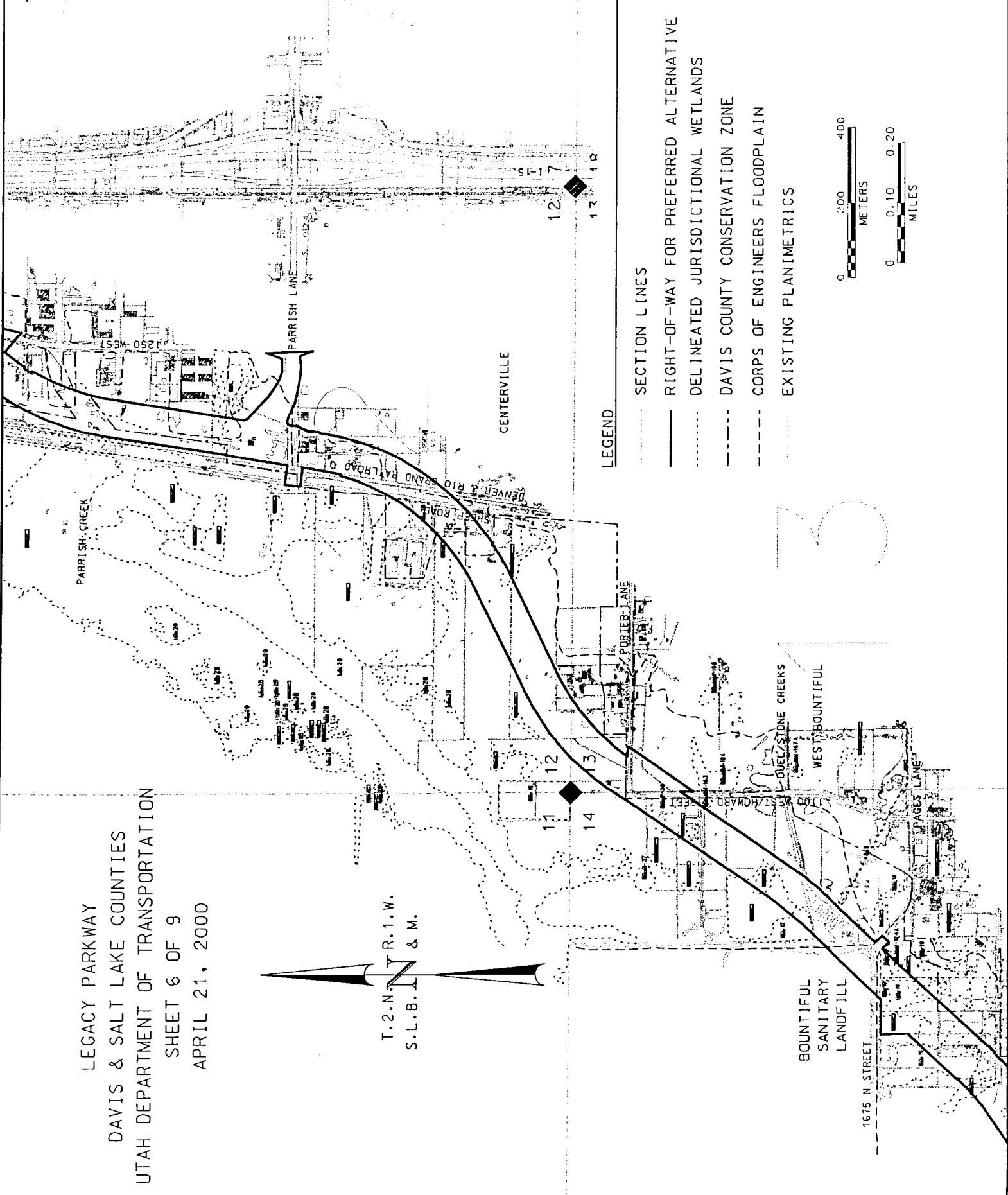
Date







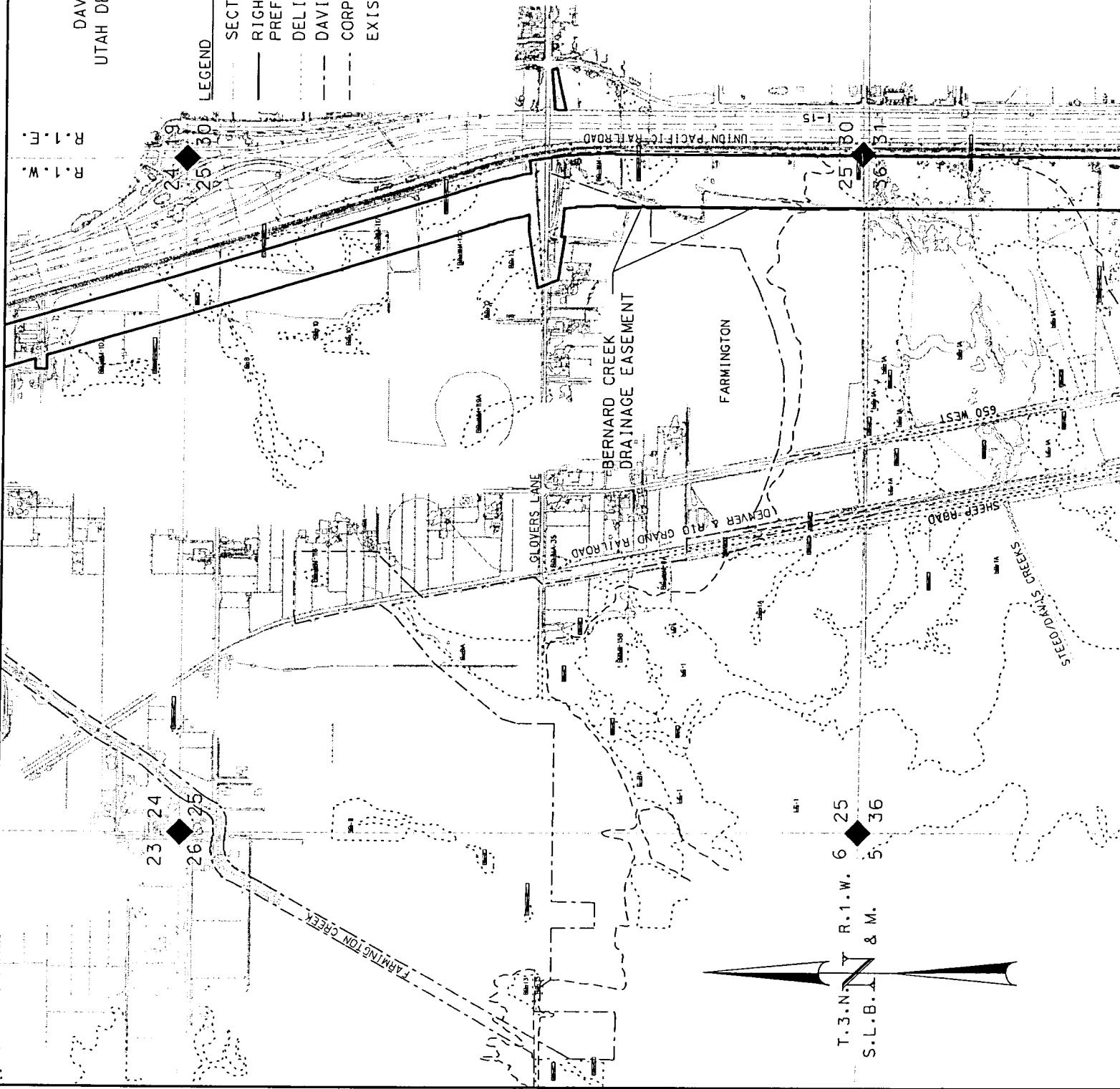
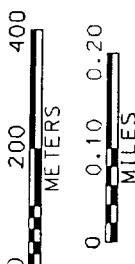
LEGACY PARKWAY
DAVIS & SALT LAKE COUNTIES
UTAH DEPARTMENT OF TRANSPORTATION
SHEET 6 OF 9
APRIL 21, 2000



LEGACY PARKWAY
DAVIS & SALT LAKE COUNTIES
UTAH DEPARTMENT OF TRANSPORTATION
SHEET 8 OF 9
APRIL 21, 2000

LEGEND

- SECTION LINES
— RIGHT-OF-WAY FOR
PREFERRED ALTERNATIVE
· · · · · DELINEATED JURISDICTIONAL WETLANDS
— DAVIS COUNTY CONSERVATION ZONE
- - - CORPS OF ENGINEERS FLOODPLAIN
EXISTING PLANIMETRICS



T.3.N. R.1.W.
S.L.B. & M.

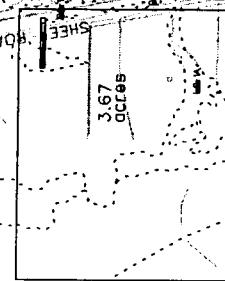
T.3.N.
T.2.N.

36
35
2
1

31
38
2
6

LUND LANE

650 WEST



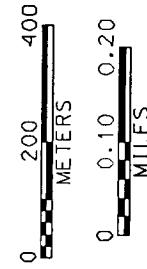
FARMINGTON
BAY

LEGACY PARKWAY
DAVIS & SALT LAKE COUNTIES
UTAH DEPARTMENT OF TRANSPORTATION
SHEET 7 OF 9
APRIL 21, 2000

LEGEND

SECTION LINES

- RIGHT-OF-WAY PREFERRED ALTERNATIVE
- ... DELINEATED JURISDICTIONAL WETLANDS
- - - DAVIS COUNTY CONSERVATION ZONE
- - - CORPS OF ENGINEERS FLOODPLAIN
- - - EXISTING PLANNIMETRICS

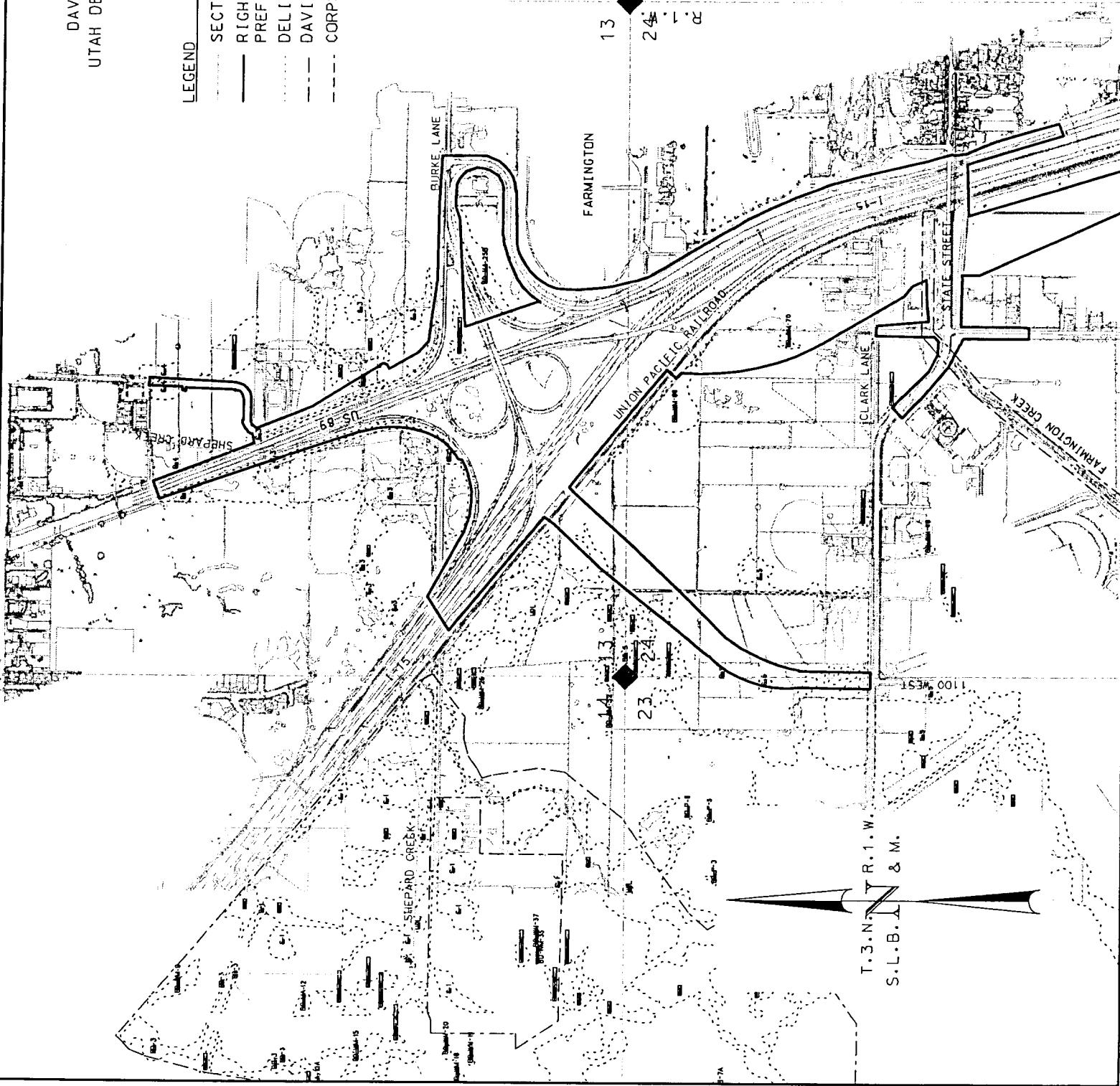
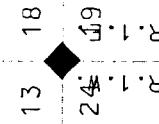
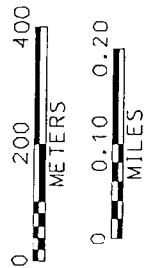


LEGACY PARKWAY
DAVIS & SALT LAKE COUNTIES
UTAH DEPARTMENT OF TRANSPORTATION
SHEET 9 OF 9
APRIL 21, 2000

LEGEND

SECTION LINES

— RIGHT-OF-WAY FOR
PREFERRED ALTERNATIVE
... DELINEATED JURISDICTIONAL WETLANDS
-- DAVIS COUNTY CONSERVATION ZONE
--- CORPS OF ENGINEERS FLOODPLAIN



Attachment 1 Mitigation Summary for Selected Alternative

Impact Category	Mitigation Measures
Wetlands (Direct and Indirect)	

The earthen berm located within the 81–84 ft buffer will be replaced by an alternate visual and acoustic buffer with a smaller footprint to avoid up to 2 acres of wetlands.

The restoration and enhancement of habitat on the Preserve will mitigate the wetland impacts. The extent of the Preserve has been modified since publication of the 2000 Final EIS. In addition to the 317 ac of mitigation lands added at the request of USFWS, four additional parcels totaling 530 ac were added to the Preserve at the request of EPA. The incorporation of these additional parcels would create a 2,098 ac mitigation Preserve.

To mitigate the loss of 103 acres of wetlands and indirect effects on 605 acres of wetlands, the following will be provided in accordance with Appendix F, *Draft Wetlands Mitigation Plan*, of the Final Supplemental EIS.

Jurisdictional Areas	MITIGATION (acres)				Mitigation Total ^d
	Active Restoration ^a	Overall Restoration ^b	Creation	Re-establishment ^c	
Marsh	34	113	0	0	147
Wet Meadow	90	262	12	8	372
Playa	63	163	0	0	226
Unconsolidated Shore	0	48	0	0	48
Open Water	2	4	0	0	6
Total	189	589	12	8	798

^a Active restoration encompasses measures such as modifications to hydrology (for example, restoring water to the Jordan River floodplain, filling in drainage ditches, and relocating artesian wells to restore wetland hydrology).

^b Overall restoration includes measures implemented throughout the Preserve such as site protection (external fencing), control of noxious / invasive species, removal of trash and debris, and removal of land uses such as livestock grazing to manage lands for wildlife.

^c Re-establishment on the Preserve consists of removing fill material at several dumpsites resulting in rebuilding former wetlands to yield a gain of wetland acres.

^d Values are rounded to the nearest whole number. Summing the values in the Mitigation Total column would equal 799 acres; however, 798 ac is accurate.

Impact Category	Mitigation Measures
	<p>The following summarizes the status of the mitigation measures included in the Draft Mitigation Plan. Mitigation activities that have been completed are shown in standard text; measures that have yet to be completed are shown in italics.</p> <ul style="list-style-type: none"> • <u>Road removal.</u> More than 8,000 linear feet of dirt roads have been removed and revegetated, resulting in the conversion of these areas to 2.3 acres of improved wildlife habitats and adjacent habitat connectivity. <i>More than 31,000 linear feet of roads in the Preserve remain that are slated for abandonment and/or removal (estimated 3.4 acres).</i> • <u>Fill, debris, and structure removal.</u> More than 3,000 dump truckloads of debris and fill material have been removed (about 900 tires, extensive cement piles, five car frames); five large structures have been removed; and more than 8 acres of wetlands have been re-established. <i>Additional areas containing fill and debris have been identified for future cleanup.</i> • <u>Drainage ditches fill in.</u> To restore the natural water table, more than 18,000 linear feet of ditches have been filled in with spoils and contoured back to natural topography. <i>A few smaller sections of ditches remain to be filled.</i> • <u>Internal fence removal.</u> All 10,000 linear feet of fences within the Preserve have been removed. • <u>Perimeter fence installation.</u> Approximately 70% of the 6-mile perimeter fencing for the Preserve has been installed to reduce human disturbance. <i>The perimeter of remaining accessible Preserve areas will be fenced (where not adjacent to other protected areas).</i> • <u>Livestock grazing prohibition.</u> Between 60% and 70% of the 2,100-acre Preserve was previously subject to grazing. All grazing within the Preserve has been prohibited. <i>Controlled grazing may be considered for managing habitat.</i> • <u>Utility relocation.</u> Two major utility lines previously within the Preserve have been relocated to outside the Preserve. <i>Coordination with PacifiCorp is ongoing to minimize wildlife disturbance.</i> • <u>Hydrologic restoration.</u> Extensive restoration activities have been completed for the Jordan River floodplain and adjacent areas, as follows: (1) the Old Jordan River oxbow and channel, called the Mini Jordan River, has been recreated, totaling 1.5 mi; (2) an island called Lord Byron's Island has been created within the Mini Jordan River; (3) 1,280 ft of meander channel have been constructed; (4) a water delivery and control system has been designed and constructed; (5) water rights have been obtained. <i>Implement adaptive management plan in order to manage Preserve hydrology to benefit wildlife.</i> • <u>Noxious weed and invasive species control.</u> Comprehensive surveys of noxious weeds/invasive species have been completed and adaptive management measures to control undesirable plants have been initiated. <i>Surveys and initial treatment results will be used to develop and implement an appropriate control plan.</i> <p>Additional measures specific to the implementation and compliance with the wetland mitigation plan are included in the Corps 404 permit #200350493, under <i>Special Conditions</i>.</p>

Land Use

None.

Impact Category	Mitigation Measures
Farmland	Owners of farmland directly within the Legacy Parkway right-of-way will be compensated according to requirements of the URAA and other state and federal guidelines. In the case of indirect impacts, UDOT will determine whether (based on the comparative costs) access is restored or the remainder of the farmland is purchased. These mitigation measures do not replace any farmland taken by the project.
Social	Business displacement assistance would be provided to Commercial Coatings, pursuant to the eligibility and other requirements of the URAA.
<i>Socially Disadvantaged Groups and Environmental Justice Populations</i>	Compensation will be provided for the real property taken or damaged or the publicly owned real property will be functionally replaced with another facility that will provide an equivalent use.
<i>Public Facilities</i>	The relocation of utilities will cause possible impacts on wetlands, farmlands, and native vegetation. Generally, these impacts will be temporary in nature. Disturbed areas from pipeline relocations will be backfilled and restored to their pre-construction contours. Mitigation measures for impacts on wetlands are described above and below for impacts on farmland.
<i>Public Services and Utilities</i>	Motorized vehicles will access the Farmington Bay Waterfowl Management Area (FBWMA) by taking the 500 South exit off Legacy Parkway and the corresponding frontage road. Similarly, motorized vehicles would access Bountiful City Pond by taking the 500 South exit and the frontage road along the west side of Legacy Parkway. Non-motorized access would be provided to both the FBWMA and the Bountiful City Pond by the frontage roads that run along the west side of the proposed alignments. Access to the frontage roads would be provided at 500 South. Mitigation for impacts on the recreation resources will be accomplished by replacing the lands lost and reshaping the shoreline to provide an equivalent area for users of the pond.
Relocations	
<i>Residential</i>	Relocation assistance will be provided to the affected households, pursuant to the eligibility and other requirements of the URAA.
<i>Business</i>	Business relocation and re-establishment assistance will be provided to the affected businesses, pursuant to the eligibility and other requirements of the URAA.
<i>Farm and Horse Paddocks</i>	Assistance will be provided to the affected farmstead and horse paddock operations, pursuant to the eligibility and other requirements of the URAA.
<i>Economic</i>	None.
Joint Development	The 312-ft highway right-of-way proposed for this project includes room for the trail. Impacts on wetlands, farmlands, and wildlife from the trail will be included in the mitigation for the overall project.

Impact Category	Mitigation Measures
Pedestrian and Bicyclist Considerations	
Air Quality	Non-tailpipe PM10 emissions will be minimized through street sweeping, minimal use of sand for snow and ice control, and other general maintenance measures performed by UDOT. See the discussion of construction impacts below for mitigation for construction-related air quality impacts.
Noise	None.
Water Quality	<p><i>Surface Water and Groundwater from Parkway Operations</i></p> <p>Through coordination with the Corps, UDEQ, and UDOT, mitigation requirements were selected to provide acceptable water quality protection once Legacy Parkway is operational. The following mitigation will be provided.</p> <ul style="list-style-type: none"> • Minimization of salting. UDOT will minimize salting on the roadway to the extent practicable. • Retention pond. UDOT will construct a retention pond near Center Street to retain sufficient runoff from a 100-year-storm flows to prevent discharge to the Jordan River. • <u>Minimization of concentrated discharges.</u> Legacy Parkway will be constructed without curbs so that stormwater runoff will sheetflow off the highway. Stormwater will be concentrated only where necessary (i.e., to collect drainage on overpasses). This concentrated stormwater will not be discharged directly into wetlands or into streams with quantitative water quality standards. Instead, concentrated discharges will be routed over vegetated buffer strips (grassy median) or dissipated back to sheetflow. • <u>Vegetated filter strips.</u> Roadway design will include vegetated filter strips (grassy median and sideslopes) to improve the quality of water runoff from the highway, as recommended by the Corps and UDEQ. All cleared areas within the right-of-way except the paved surface will be vegetated to filter suspended particles, metals, oils, and greases from the runoff. • <u>Surface water conveyance.</u> Runoff on the upstream side of the road will gradually flow to the toe of the roadway slope and/or the berm, then cross under the road through small surface water conveyances. The conveyances will be positioned to maintain sheetflow conditions across the study area to the extent practical, minimize concentrated discharges for water quality and wetland mitigation, and, at a minimum, limit culverted discharges to less than 5 cu ft per second. Surface water conveyances will be installed in areas where an existing hydrologic connection will be cut off by the proposed highway. The conveyances will be designed to pass surface water through the road in the direction or directions of its existing flow. The conveyances could be many types of drainage structures, including culverts, series of small culverts, French drains, corrugated strip drains, synthetic drainage nets, and gravel layers. • Floodplain equalization culverts. Based on specific hydraulic design information, UDOT and the Corps determined that equalization culverts for the purpose of equalizing floodwaters across the road will only be needed within the Corps floodplain boundary (4,217 ft), rather than along entire length of the proposed roadway.

Impact Category	Mitigation Measures
<i>Groundwater Rights</i>	<ul style="list-style-type: none"> • <u>Groundwater conveyance.</u> Groundwater conveyance structures will be installed to mitigate the potential impact of the road embankment, consolidating underlying soils and impeding groundwater flows. Groundwater conveyances will be installed in areas where fill heights exceed approximately 10 ft and will extend from the eastern fill limit to the western fill limit. • <u>Scour and erosion protection.</u> If warranted, scour protection to mitigate downstream erosion will be provided at all culvert outlets and stream crossings, based on a case-by-case analysis to determine outlet velocities. Velocities will be calculated for 50-year storm flows except at stream crossings, where the 100-year storm flow will be used. For velocities greater than 4 ft per second but less than 15 ft per second, loose riprap will be provided, based on UDOT design guidelines (Utah Department of Transportation 2004). For velocities greater than 15 ft per second, an energy dissipater will be provided. <p>UDOT will either purchase the groundwater right from the owner or pay for a transfer of the right. The determination will be made on a case-by-case basis.</p>
<i>Permits</i>	None.

Wildlife (Direct and Indirect)

Acreage

Based on the analysis presented in Section 4.13, *Wildlife*, of the Final Supplemental EIS, the restoration and enhancement measures for the Preserve would mitigate the direct loss of wildlife habitat, habitat fragmentation, and noise impacts (see the discussion of wetlands mitigation above). The Preserve would provide wetland and upland habitat at about a 3:1 acre ratio of mitigation habitat to direct habitat loss for a wide variety of species, including migratory birds. The wetland restoration measures for the Preserve (see the discussion on wetlands above) would also benefit wildlife. The Preserve would provide wetland and upland habitat for a wide variety of species. An additional 317 ac of mitigation lands proximate to the FBWMA were added to the Preserve, at the request of USFWS, to offset wildlife impacts not captured by the wetland functional assessment models. In addition, four additional parcels totaling 530 ac were added to the Preserve to address EPA's concerns regarding the adequacy of the mitigation package. The incorporation of these additional parcels directly into the mitigation package would result in preservation of a 2,098-ac area.

As additional mitigation for unquantifiable impacts on bird populations from project noise, UDOT has committed to fund a study to determine the effects of highway noise on bird populations in the project area and comparable habitats. The study, which is being collaboratively designed by the federal lead agencies, UDOT, USFWS, and UDWR, will include the monitoring of bird populations and noise before, during, and after construction of the highway. The results of the monitoring will be used to develop a tool for the analysis of noise impacts on wildlife for future projects. A statement of commitment outlining the specifics of the noise study, and signed by the federal lead agencies, UDOT, and the resource agencies, is included in Appendix H, *Statement of Commitment*, of the Final Supplemental EIS.

Based on the analysis presented in Section 4.13, *Wildlife*, the Preserve would mitigate the direct loss of wildlife habitat, habitat fragmentation, and noise impacts.

Impact Category	Mitigation Measures
<i>Streams</i>	The Jordan River would be bridged, and natural stream substrate culverts would be used along perennial streams (Farmington Creek) and other large drainages requiring culverts larger than 4 ft in diameter to facilitate movement of fish and other aquatic wildlife. The culverts would be placed at an elevation that would retain natural stream substrates and have the greatest value in maintaining natural conditions.
<i>Vegetation</i>	The right-of-way will be landscaped with non-invasive vegetation.
<i>Equalization Culverts</i>	Culverts would be installed to allow floodwater during Great Salt Lake's high-water years to pass beneath the roadway and supply wildlife habitat east of the right-of-way. In addition, vegetated filter strips and surface water conveyance structures will be incorporated into the project design to minimize impacts on water quality and hydrology. These structures are described in the discussion of water quality mitigation above.
<i>Birds</i>	Raptors. Preconstruction surveys of known raptor nests will be conducted within the Legacy Parkway corridor by a qualified wildlife biologist to determine which nests are active. If nests are determined active, coordination with USFWS and UDWR will occur, and appropriate actions under the Migratory Bird Treaty Act and USFWS Raptor Guidelines (Romin and Muck 1999) will be followed to ensure the least amount of impact on the species.
	Peregrine Falcon. Also see the section on threatened and endangered species below. UDOT will prevent construction activities from impacting nesting peregrine falcons by implementing the following measures.
	<i>Construction Activities.</i>
	• UDOT will require a qualified wildlife biologist to monitor the nest for any activities occurring within 1 mi of the nest from the courtship through post-fledgling dependency periods (about a 126-day period from February 1 through August 31). If, during monitoring, the peregrine falcons appear disturbed in any manner, construction activities will immediately cease and UDOT will immediately consult with USFWS before continuing construction activities.
	<i>Human Use.</i>
	• Human use of project lands will be controlled to prevent any take (particularly harm and harassment) of nesting peregrine falcons and/or their young.
	• Project employees will be informed of the presence of the peregrine falcon and the need to minimize disturbance during nesting.
	• No recreational trail facilities that encourage extended human use of the area (for example, picnic tables and) will be constructed on project lands within 1 mi of the nest and roost sites. Additionally, no animals, including livestock and/or pets, will be allowed on mitigation properties.
	• Right-of-way fences will be constructed and maintained along the length of the Parkway.
	Bald Eagle. See the section on threatened and endangered species below.

Impact Category	Mitigation Measures
Floodplains	The road elevation will be sited above the 100-year flood elevation of the streams that the project crosses and Great Salt Lake. Any damage sustained by the new roadway when the lake level is high would be corrected through road maintenance. Major drainage structures would be designed to pass the 100-year flood without overtopping the road or changing the regulatory floodway. Riprap and other measures would be provided at the ends of drainage structures to control erosion where appropriate.
<i>Equalization Culverts</i>	Floodplain equalization culverts will be constructed within the Corps floodplain to allow floodwater to pass back and forth beneath the roadway to preserve the natural and beneficial floodplain.
Threatened and Endangered Species	<p>Wildlife – Birds</p> <p>The Preserve would provide long-term benefits for avian species. Additional reasonable and prudent measures and their terms and conditions based on the USFWS Biological Opinion are outlined below. Because the peregrine falcon has been delisted as an endangered species, the terms and conditions of the biological opinion with respect to peregrine falcon are no longer considered nondiscretionary under authority of the ESA. However, USFWS still recommends implementation of these measures.</p> <p><u>Bald Eagle</u>. To prevent construction activities from impacting nesting or wintering bald eagles:</p> <ul style="list-style-type: none"> • No construction activity will occur from the courtship through incubation/brood rearing periods (approximately January 1 through May 21) within 1 mile of a bald eagle nest. • During the nesting through post fledging dependency period (approximately May 21 through August 31), the 1-mile buffer may be changed to 0.5 mile for some activities. Coordination with and concurrence from USFWS must occur prior to any activities occurring under this condition. • The Corps and/or FHWA will require continuous monitoring of the bald eagle nest by a qualified wildlife biologist for activities occurring within 1 mile of a bald eagle nest. • If, during monitoring, bald eagles appear disturbed in any manner, construction activities will immediately cease, and the Corps and/or FHWA will immediately follow the reporting requirement issued in the biological opinion. • No construction activities will occur from November 1 through March 31 within 0.5 mile of bald eagle winter roosting sites. <p><u>Bald Eagle (and Peregrine Falcon)</u>. To control human use of the area to prevent take, particularly harm and harassment, of nesting and wintering bald eagles and peregrine falcons and/or their young:</p> <ul style="list-style-type: none"> • Project employees will be informed of the presence of bald eagles and peregrine falcons and the need to minimize disturbance during nesting and wintering periods. • No recreational trail facilities that encourage extended human use of the area will be constructed within 1 mile of nest and roost sites. • Right-of-way fence will be constructed and maintained along the length of the highway to deter human use of the proposed Preserve.

Mitigation Summary Table

Impact Category	Mitigation Measures
Historic and Archaeological Resources <i>Historic Structures</i>	To prevent highway maintenance activities from impacting nesting bald eagles and peregrine falcons over the life of the project: <ul style="list-style-type: none"> • No maintenance activities that result in noise or activity levels above that of normal highway operation conditions will be conducted within 1 mile of peregrine falcon aeries and 1 mile of bald eagle nest sites during the breeding season. • No maintenance activities that result in noise or activity levels above that of normal highway operation conditions will be conducted from November 1 through March 31 within 0.5 mile of bald eagle winter roost sites.
Prehistoric and Archaeological Sites	<p>The White House at 10 North 650 West in Farmington has been demolished since publication of the Final EIS in 2000. Mitigation for this adverse impact was completed by documenting the building to Utah State Intensive Level Survey (ILS) standards before its removal.</p> <p>Historic Properties eligible under criterion C would be documented to Utah State ILS standards prior to demolition. Mitigation of adverse affects on the historic structures at 1300 W. Glover Lane and 662 W. Clark Lane, both in Farmington, would be conducted according to the September 2005 MOA. Mitigation measures would include preparation of an ILS form, photographic documentation of the structures, preparation of illustrated floor plans, archival research, and a submittal to the Utah Division of History, Preservation Section. In addition to the ILS documentation, a retaining wall would be built for 662 W. Clark Lane.</p> <p>The September 2005 MOA includes design mitigation measures to ensure that project-related impacts on the Clark Lane Historic District (CLHD) are minimized and that the CLHD and its contributory elements are returned to their original pre-construction condition. The September 2005 MOA also includes measures to minimize potential harm from construction-related vibration.</p> <p>Archeological sites would be excavated and data recovered in accordance with the September 2005 MOA. All activities would be coordinated with the SHPO and the ACHP. The MOA was also distributed to regional Native America Tribes for their concurrence. Mitigation would be required for any NRHP-eligible archaeological site physically affected by construction. Typical mitigation measures for NRHP-eligible archaeological sites include archival investigations, development of a data recovery plan, consultation between FHWA, UDOT, SHPO, the tribes, and other consulting parties. To date, consultation with SHPO has resulted in the following specific mitigation measures.</p> <ul style="list-style-type: none"> • In accordance with the September 2005 MOA, the site limits of 42Dv2 and 42Dv94 will be delineated and protected from construction activities through the use of construction fencing. • To minimize impacts on 42Dv70, a professional archaeologist will monitor excavation and earthmoving activities associated with highway construction in the vicinity of the site. If the monitoring archaeologist determines during the design-build process that the site boundaries extend into the construction footprint, data recovery will be initiated in accordance with the September 2005 MOA. <p>In addition, the Preserve mitigation plan will include a management plan to ensure the future health of cultural resources within the boundaries of the Preserve.</p>

Impact Category	Mitigation Measures
<i>Historic Railroad Corridors</i>	Direct use of the D&RG Railroad would occur by crossing it at grade at one location. To reduce the direct use by 0.8 ac the parkway will span the D&RG Railroad with an arch structure at the crossing just south of Parrish Lane. SHPO concurred that the Selected Alternative would have no adverse effect on the NRHP-eligible D&RG Railroad corridor or the NRHP-eligible UPRR corridor.
Hazardous Waste Sites	Measures would be implemented to prevent the spread of contamination and worker exposure to contaminants during construction. In the case of known chemical hazards, the site remedy may be negotiated through the U.S. EPA and/or UDEQ; remedial action would be conducted by a qualified hazardous waste contractor certified by the U.S. OSHA. If contamination by unknown chemical hazards is suspected, the Parkway construction contractor would stop work. The contractor would employ the services of a certified industrial hygienist and environmental scientists who can identify the nature of the hazard and appropriate response measures. The Northwest Oil Drain site would be mitigated by avoidance through bridging. The impacts on the Bountiful Sanitary Landfill would be mitigated by relocating the facilities and removing landfill waste material located within the right-of-way, and disposing of it at a permitted facility.
Visual Resources	Revegetation of the highway grade would help soften the visual impacts of the highway and blend it into the existing landscape. Native plants would be used where possible. The work would be completed as quickly as possible after construction to lessen the amount of time the highway grade would be more visible. Landscaping and a trail system are planned for the entire length of Legacy Parkway. Landscaping includes different approaches for different areas. Where Legacy Parkway is adjacent to I-15, grasses would be used. In areas of open farmland and light industry, there would be moderate tree and shrub planting. Windows facing east would maintain views of the mountains and windows facing west would maintain open views. In residential areas, berms and tree and shrub plantings would be used.
Energy	None.
Construction	A public information program will be implemented to alert the community of ongoing and future construction activities. Information would include construction work hours and alternative travel routes. Signs would be used to notify motorists of work activities and changes in traffic patterns. Night and weekend work may shorten the duration of the construction impacts. Lights used during nighttime construction would be aimed directly at the work area and/or shielded from nearby residences. Construction activities would be limited during certain periods to protect threatened and endangered species.
<i>Best Management Practices</i>	The following construction BMPs will be implemented during construction. <ul style="list-style-type: none"> • Silt fence. • Berms. • Check dams. The silt fence will be placed to filter out silt/sediment from stormwater before stormwater runoff leaves the right-of-way. Earthen berms will be placed along both sides of the right-of-way inside the silt fence. Check dams will then be placed at each drainage crossing. These BMPs will prevent silt and sediment from leaving the right-of-way.

Mitigation Summary Table

Impact Category	Mitigation Measures
<i>Construction Noise</i>	To reduce temporary noise from construction, contractors will comply with all state and local regulations relating to construction noise. In addition, the following measures will be implemented. <ul style="list-style-type: none"> Construction will be restricted to daytime hours within 1,000 ft of residences. No construction will be performed within 1,000 ft of an occupied dwelling unit on Sundays or legal holidays or between 10:00 p.m. and 6:00 a.m. on other days. Any variance from this condition will require approval by the UDOT construction manager. All equipment will have sound control devices at least as effective as the original factory-installed devices. No equipment will have unmuffled exhaust. The noise from any rock-crushing or screening operations conducted within 3,000 ft of any occupied dwelling unit will be mitigated either by placing material stockpiles between the operation and the affected dwelling or by other means approved by the UDOT construction manager. As directed by the UDOT construction manager, the contractor will implement appropriate additional noise mitigation measures, possibly including changing the location of stationary construction equipment, shutting off idling equipment, rescheduling construction activity, notifying adjacent residents in advance of construction work, or installing acoustic barriers around stationary construction noise sources.
<i>Construction Haul Routes</i>	UDOT will specify that the contractor only use state roads as haul routes. Haul routes will vary depending on where construction is taking place along the roadway.
<i>Construction Air Quality</i>	Fugitive dust, which is dust generated by construction equipment such as haul trucks and earth-moving vehicles, will be mitigated according to a dust control plan, to be developed by the contractor according to Utah Division of Air Quality standards. This plan will include measures for minimizing fugitive dust, such as applying dust suppressants and water sprays, minimizing the number of disturbed surface areas, and restricting activities during periods of high wind.
<i>Construction Vibration on Clark Lane Historic District</i>	This mitigation includes maximum energy ratings for pile driving hammers, prescribed vibration monitoring requirements for the home at 399 W. State Street, specific guidance on measures to take if vibration levels exceed 0.3 cm/sec (0.12 in/sec), a requirement for pre- and post-construction surveys of structures in the CLHD, and notification of homeowners in the district prior to pile driving activities.
<i>Construction Streetscape Impacts</i>	None of the build alternatives would affect mature trees in front of 393 W. State Street and 398 W. State Street in the CLHD. To ensure that the CLHD and its contributory elements are returned to their original pre-construction condition, the September 2005 MOA stipulates that the design of the State Street overpass will include provisions for minimizing grade changes, redesigning and incorporating sidewalks within the CLHD into the sidewalks for the new bridge structure, and maintaining existing landscape and streetscape features.
Short-Term Uses vs. Long-Term Productivity	None.

Impact Category	Mitigation Measures
Irreversible and Irretrievable Commitment of Resources	None.
Section 4(f) Properties	Mitigation measures specific to Section 4(f) properties are described in the FHWA ROD.
Section 6(f) Properties	Mitigation measures specific to Section 6(f) properties are described in the FHWA ROD.

Notes:

ACHP = Advisory Council on Historic Preservation

BMPs = best management practices

Corps = U.S. Army Corps of Engineers

EPA = U.S. Environmental Protection Agency

FBWMA = Farmington Bay Waterfowl Management Area

ILS = Intensive-Level Survey

MBTA = Migratory Bird Treaty Act

MOA = Memorandum of Agreement

OSHA = Occupational Safety and Health Administration

PA = Preferred Alternative

SHPPO = (Utah) State Historic Preservation Office

TSS = total suspended solids

UDEQ = Utah Department of Environmental Quality

UDOT = Utah Department of Transportation

UDWR = Utah Division of Wildlife Resources

UPDES = Utah Pollutant Discharge Elimination System

URAAA = Uniform Relocation Assistance Act

USFWS = U.S. Fish and Wildlife Service

January 2006



DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF WATER QUALITY

FILE COPY

Michael O. Leavitt
Governor

Dianne R. Nielson, Ph.D.
Executive Director

Don A. Ostler, P.E.
Director

288 North 1460 West
P.O. Box 144870
Salt Lake City, Utah 84114-4870
(801) 538-6146
(801) 538-6016 Fax
(801) 536-4414 T.D.D.
www.deq.state.ut.us Web

December 5, 2000

Mr. Brooks Carter
U.S. Corps of Engineers
1403 So. 600 West Suite A
Bountiful, Utah 84010

Dear Mr. Carter:

Subject: Water Quality Certification
404 Permit Application No.: 199650197
Legacy Parkway

Applicant: Utah Department of Transportation (UDOT)
Salt Lake City, Utah

Location: The project begins at the intersection of 2100 N and I215 in Salt Lake City, UT and ends at the U.S. 89 and I-15 Interchange in Farmington, UT.

Purpose: The primary purpose of the project is to help meet the traffic demand in the North Corridor (generally defined as from 600 N in Salt Lake City to 200 N in Kaysville, UT) for the year 2020.

Project Description:

The project will be a four lane freeway with controlled access, grade separated crossings, and a 20 meter (66 ft) wide median. It will be approximately 22.5 km (14 miles) long. [For a complete project description refer to Public Notice No. 199650197]

We have reviewed the referenced application. It is our opinion that applicable water quality standards will not be violated if appropriate Best Management Practices (BMP's) are incorporated to minimize the erosion-sediment load to any adjacent waters. We recommend that BMP's be required and that those BMP's be monitored regularly for effectiveness.

December 5, 2000

Page 2

In addition, the construction of this project will be regulated by a storm water discharge permit administered by this office, and construction activities must be controlled to meet the requirements of that permit.

Pursuant to Section 401(a)(1) of the Federal Water Pollution Control Act, as amended in 1987, it is hereby certified that any discharge resultant from the project will comply with applicable State water quality standards and, to the best of our knowledge, will comply with applicable provision of Sections 301, 302, 303, 306, and 307 of said Act.

Sincerely,



Don A. Ostler, P.E.
Director

DAO:JBP

